Application No.: 10/710,823
Amdt. Dated April 28, 2008
Non-Final Office Action mailed December 27, 2007

Amendments To The Claims

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1.   (Previously presented)A method for displaying a graphical representation of a bottom-hole assembly (BHA) and drill string attached to the BHA using vector graphics, comprising:

providing source data;

parsing the source data to produce BHA graphics data packets corresponding to BHA graphics components, and including instructions for animation;

interpreting the BHA data packets to correlate the BHA graphics data packets with BHA graphics components;

parsing the source data to produce drill string data packets corresponding to drill string graphics components, and including instructions for animation;

interpreting the drill string data packets to correlate the drill string data packets with drill string graphics components;

assembling, using the correlated BHA data packets and correlated drill string data packets, a BHA/drill string graphic from vector components stored in a vector component library;

scaling the BHA/drill string graphic;

animating the scaled BHA/drill string graphic; and

displaying the graphical representation of the BHA/drill string using the animated scaled BHA/drill string graphic.

2.   (Original)   The method of claim 1, wherein the BHA source data are in a WITSML data file or a text file.

3.   (Original)   The method of claim 1, wherein the displaying further displays the BHA source data.

4.   (Original)   The method of claim 3, wherein the displayed BHA source data and the displayed BHA are in separate windows.

2

Application No.: 10/710,823
Amdt. Dated April 28, 2008
Non-Final Office Action mailed December 27, 2007

5.   (Original)   The method of claim 1, wherein the parsing and the interpreting the BHA source data further produce data corresponding to well log data, and the displaying further displays the data corresponding to the well log data.

6.   (Original)   The method of claim 5, wherein the well log data comprise at least one selected from the group consisting of a weight on bit, a rate of rotation, a rate of penetration, torques experienced by the BHA, drags experienced by the BHA, shocks experienced by the BHA, and stresses associated with the BHA components.

7.   (Original)   The method of claim 5, wherein the well log data comprise at least one selected from the group consisting of gamma ray data, nuclear magnetic resonance data, formation resistivity data, formation porosity data, and formation type data.

8.   (Original)   The method of claim 1, wherein the displaying further comprises displaying data corresponding to well log data, wherein the well log data are not included in the BHA source data.

9.   (Original)   The method of claim 8, wherein the well log data comprise at least one selected from the group consisting of a weight on bit, a rate of rotation, a rate of penetration, torques experienced by the BHA, drags experienced by the BHA, shocks experienced by the BHA, and stresses associated with the BHA components.

10.   (Original)   The method of claim 8, wherein the well log data comprise at least one selected from the group consisting of gamma ray data, nuclear magnetic resonance data, formation resistivity data, formation porosity data, and formation type data.

11.   (Canceled)

12.   (Previously presented)The method of claim 1, wherein the animating is based on information related to a well trajectory or time-versus-depth data.

13.   (Previously presented)The method of claim 12, wherein the information is included in the BHA source data.

14.   (Previously presented)The method of claim 13, wherein the information is not included in the BHA source data.

15.   (Previously presented)The method of claim 12, wherein the information is streamed from a well logging operation.

16.   (Canceled)

17.   (Canceled)

3

Application No.: 10/710,823
Amdt. Dated April 28, 2008
Non-Final Office Action mailed December 27, 2007

18.   (Previously presented) The method of claim 1, wherein the animating is based on information related to a well trajectory or time-versus-depth data.

19.   (Original)   The method of claim 18, wherein the information is included in the BHA source data.

20.   (Original)   The method of claim 18, wherein the information is not included in the BHA source data.

21.   (Original)   The method of claim 20, wherein the information is streamed from a drilling operation.

22.   (Original)   The method of claim 18, wherein the animating further displays data related to one selected from formation data, borehole data, and BHA data.

23.   (Original)   The method of claim 22, wherein the data selected from the formation data, the borehole data, and the BHA data is streamed from a drilling operation.

24.   (Original)   The method of claim 1, further comprising displaying a borehole surrounding the BHA.

25.   (Original)   The method of claim 24, further comprising animating the displayed BHA along the borehole.

26.   (Original)   The method of claim 24, wherein the borehole is displayed as a cylinder sections.

27.   (Original)   The method of claim 26, the cylinder sections of the borehole are displayed in sequence to simulate a drilling process.

28.   (Original)   The method of claim 27, further comprising animating the displayed BHA to simulate the drilling process.

29.   (Previously presented)   A system for displaying a bottom-hole assembly (BHA) using vector graphics, comprising a processor and a memory, wherein the memory stores a program having instructions for:

parsing the source data to produce BHA graphics data packets corresponding to BHA graphics components, and including instructions for animation;

interpreting the BHA data packets to correlate the BHA graphics data packets with BHA graphics components;

parsing the source data to produce drill string data packets corresponding to drill string graphics components, and including instructions for animation;

4

Application No.: 10/710,823
Amdt. Dated April 28, 2008
Non-Final Office Action mailed December 27, 2007

interpreting the drill string data packets to correlate the drill string data packets with drill

string graphics components;

assembling, using the correlated BHA data packets and correlated drill string data packets,

a BHA/drill string graphic from vector components stored in a vector component library;

scaling the BHA/drill string graphic;

animating the scaled BHA/drill string graphic; and

displaying the graphical representation of the BHA/drill string using the animated scaled

BHA/drill string graphic.

5